COMMONWEALTH OF MASSACHUSETTS

MIDDLESEX, SS.

SUPERIOR COURT
CIVIL ACTION
NO. 2002-4171

HEATH AND TARA CAREY, INDIVIDUALLY and as ADMINISTRATOR and ADMINISTRATRIX to the ESTATE OF VIOLET AND IRIS CAREY,	*
Plaintiffs	*
vs.	*
NSTAR GAS COMPANY, INNER-TITE CORP. and LEONARD AND ANNE-MARIE PEARSON,	*
Defendants	*

PLAINTIFFS' DISCLOSURE OF EXPERT WITNESSES

Pursuant to the agreement of the parties, the plaintiffs disclose herewith the expert witnesses who may be called to testify at the trial of this action. This disclosure is based on discovery, investigation, research and testing conducted to date. To the extent additional information becomes available or other developments occur subsequent to this disclosure, the plaintiffs reserve the right to amend, supplement or modify their disclosure in accordance with Rule 26(e)(1), Mass. R. Civ. P.

At present, the plaintiffs expect that they may call the following experts at the trial of this action:

Charles H. Batten, P.E.
Batten & Associates, Inc.
140 Edgemont Circle
Locust Grove, VA 22508

W. Alan Bullerdiek
Bullerdiek Associates
8665 Sheridan Drive
Buffalo, NY 14221

Robert Rose, Ph.D. and
Joseph Parse, Ph.D.
M.I.T.
Cambridge, MA 02139

Richard J. Splaine, ME, CFI
Splaine Investigations, Inc.
14 North Hill Drive
N. Falmouth, MA 02556

Wilson G. Dobson, P.E.
Binary Engineering Associates, Inc.
P.O. Box 528
Holden, MA 01520

The curriculum vitae of these experts are provided herewith or will be provided upon receipt.

Mr. Batten is a consultant in the area of pipeline and hazardous materials transportation with an extensive background in the area of investigation of natural gas explosions and pipeline operation compliance evaluations relative to federal and state requirements.

Mr. Bullerdiek is a graduate chemical engineer with extensive experience in investigating gas explosions and analysis of associated state and federal regulations.

Dr. Rose and Dr. Parse are experts in the field of materials science and engineering.

Mr. Splaine is an expert in the area of fire investigation.

Mr. Dobson is an expert in the areas of mechanical and materials engineering.

All of these experts are expected to testify with respect to their education, training and experience, their review of the discovery and investigation compiled in this case, their inspection of the evidence retained by authorities in connection with the explosion and their opinions concerning the cause of the explosion. Where indicated below, each such expert is expected to testify with respect to the defendants' role in causing the explosion.

At present, each of these experts is expected to testify that the explosion at 65 Main Street, Hopkinton occurred as a result of an ignition of gas that was released in the basement under high pressure from NSTAR Gas Company's (NSTAR's) gas service line. The gas that filled the basement and other portions of the apartment building at 65 Main Street prior to the explosion was released from a failed transition fitting located at the inside cellar wall. No other breach in the system which could account for this gas leakage was found by fire investigators after the explosion. The failed transition fitting, therefore, was the source of the natural gas that fueled the explosion. The explosion occurred due to the defendants' failure to adequately test and inspect critical components in the gas supply system as detailed below.

The fitting failed as a result of a combination of circumstances, including but not necessarily limited to the following:

1. the gas system pressure;
2. ground water periodically entering the metal casing (the previous gas service line) for the plastic gas service line and contacting portions of the metal fitting to create a corrosion cell;
3. the absence or inadequacy of protection from stress associated with external loading that could have and should have been anticipated;
4. the weakened condition of the fitting due to extensive corrosion.

This combination of circumstances placed more pressure on the fitting than the fitting was able to withstand in its weakened condition, resulting in the fitting failing in service and resulting in the explosion that caused the deaths of the plaintiffs' children.

Mr. Batten and Mr. Bullerdiek are further expected to testify that the defendant NSTAR was grossly negligent in connection with the incident and violated numerous Federal and internal NSTAR regulations regarding the gas service at 65 Main Street. This gross negligence was the primary cause of the explosion.

Mr. Batten and Mr. Bullerdiek are expected to testify that NSTAR was aware that a portion of its high-pressure gas service line extended within the basement of the building at 65 Main Street and as such posed an unreasonably high degree of risk to occupants of the apartment building if it failed. Leakage from the high pressure side of the system posed the extreme risk of reaching an explosive concentration in minutes, as occurred just prior to the explosion in this case. As such, it was critical that NSTAR maintain the gas service in a safe condition at all times for the protection of its customers. Instead, NSTAR violated numerous rudimentary principles of safety and basic requirements of federal regulations and its own internal standards and procedures, including but not limited to the following:

1. NSTAR had actual knowledge of atmospheric corrosion on the fitting and likely other piping within the basement of 65 Main Street but consciously decided to not evaluate the potential effects of that corrosion upon the fitting even though the fitting was subjected to high-pressure and was located within a building. NSTAR employee Richard Gray actually observed the dangerous condition while performing meter changes within the basement at the site. Gray was sufficiently concerned so as to notify his supervisor, Scott Alexander, of the condition.

Alexander acted with gross negligence in either observing and failing to replace the corroded piping and fitting or in failing to inspect the corroded piping and fitting. The failure to replace the corroded fitting was the direct cause of the explosion.

2. NSTAR further failed to comply with applicable federal regulations relating to corrosion control and remedial measures concerning corrosion. The corroded transition fitting at the basement wall was subject to the requirements set forth in 49 C.F.R. Part 192, paragraphs 479, 481 and 487, with respect to the gas service line in the building basement. NSTAR violated these sections in that it failed to determine the areas of atmospheric corrosion, failed to coat or jacket areas of the pipeline exhibiting evidence of atmospheric corrosion, and failed to determine if remedial measures as described in 49 C.F.R. Part 192.487 needed to be taken.

3. NSTAR failed to conduct leakage surveys as required in 49 C.F.R. Part 192.723.

4. NSTAR violated 49 C.F.R. Part 192.605 and failed to follow portions of its own procedures in OM-66, O & M Section 4, and Chapters 1, 5 and 8 of its Service Manual with respect to pipe joining, atmospheric corrosion protection, atmospheric corrosion monitoring, leakage surveys, service employee inspections on customer premises, employee training and monitoring and company records.

5. NSTAR was in gross violation of its Operating and Maintenance Procedures OM-66, relating to corrosion control. Even after it became aware of atmospheric corrosion on the fitting in the basement of 65 Main Street it violated the provisions of these procedures by failing to clean and coat or jacket the corroded

pipe segments and it failed to evaluate whether additional remedial measures needed to be taken.

6. NSTAR employee Thomas Carver grossly failed to comply with NSTAR requirements during at least two meter turn-ons at the site by failing to inspect the gas piping in the basement, failing to identify and mark the meters as to the customers served, and failing to check some appliances as required before turning on the meters. Had Carver performed the required inspections, the corroded service pipe and transition fitting would have been timely discovered so as to allow appropriate remedial measures to have been taken.

Mr. Batten and Mr. Bullerdiek are also expected to testify with respect to the actions of Inner-Tite Corp. in connection with marketing the subject fitting. Inner-Tite knew or should have known that the transition fittings it supplied to NSTAR (previously Commonwealth Gas Company) would be utilized as was done in this instance to connect high-pressure buried plastic gas lines and the steel casings through which they were inserted to a high-pressure steel gas pipe. Inner-Tite Corp. also knew or should have known that the steel casing with plastic pipe insertions would not be protected against ground water entry through defective end seals or through corrosion holes and, in time, ground water would enter the casing and contact portions of its transition fitting. Further, Inner-Tite Corp. knew or should have known that some of its transition fittings would be used to connect encased, buried plastic pipe to high-pressure steel pipes within buildings and over extended periods of time ground water entering the steel casing through corrosion holes or leaking casing seals could create a corrosive environment for its fitting.

Thus, Inner-Tite was aware or should have been aware that when its fitting was used as described above, the fitting could be subjected to corrosion damage, system pressure, and external forces that individually and collectively could cause it to fail. Inner-Tite, knowing that it had designed its fitting for high-pressure applications, knew or should have known that the failure of its fitting within a building would likely result in catastrophic consequences, such as those which occurred in this case.

For all of the above reasons, it was critical for Inner-Tite to take appropriate measures to enable the fitting to resist corrosion and to warn and instruct its utility customers of the hazards associated with excessive corrosion of the fitting, the need to replace the fitting when signs of corrosion were evident and the fact that Inner-Tite had not conducted long term corrosion tests of the fitting and was therefore not aware of its useful life. These failures of Inner-Tite were a contributing cause of the explosion.

Mr. Batten's and Mr. Bullerdiek's opinions are based on their education, training and experience, their inspection of the equipment preserved by authorities and their review of the discovery and investigation compiled in connection with this case.

Dr. Rose, Dr. Parse and Mr. Dobson are expected to testify with respect to the metallurgical issues in the case. They are expected to testify that their analysis and examination of the subject transition fitting indicated that the fitting corroded from the outside in so that at the time of the incident, a substantial portion of the fitting body had completely rusted away and the inner threads of the fitting body were essentially rusted away, with no more than about 30 degrees of the 360 degrees of threads intact. Prior to the explosion, the fitting was essentially held together by a band of friable rust. Prior to the explosion, this band of rust fractured, resulting in separation of the fitting body and fitting nut, and allowing the plastic tubing to slide

back past the upstream side of the rubber gasket. This caused a release of gas on the high pressure side of the system, and resulted in the noises heard by witnesses just prior to the explosion. The released gas quickly reached an explosive concentration and was ignited, causing the explosion of the building and the deaths of plaintiffs' children.

Dr. Rose, Dr. Parse and Mr. Dobson are further expected to testify that the Inner-Tite fitting was defective in design and in its failure to be accompanied by adequate warnings and instructions. Inner-Tite was aware or should have been aware that its fitting would be in use for extended periods of time and would be employed in wet, corrosive environments whether utilized outside or inside of buildings. For this reason, the fitting should have incorporated available, inexpensive measures to resist corrosion. This could have been accomplished simply by utilizing a zinc component in the fitting. At the very least, the fitting supplied to NSTAR in this case should have been treated with a corrosion-resistant coating such as zinc or cadmium.

Dr. Rose, Dr. Parse and Mr. Dobson are expected to testify that when used in a corrosive environment, it was inevitable that the unprotected fitting would fail if it were left in use over a period of many years. For this reason, Inner-Tite should have warned and instructed its utility customers of the hazards associated with excessive corrosion of the fitting, the need to replace the fitting when signs of corrosion were evident and the fact that Inner-Tite had not conducted long term corrosion tests of the fitting and was therefore not aware of its useful life. These failures of Inner-Tite were a contributing cause of the explosion.

Dr. Rose's, Dr. Parse's and Mr. Dobson's opinions are based on their education, training and experience, their inspection of the equipment preserved by authorities, their review of the discovery and investigation compiled in connection with this case, and their analysis and evaluation of the metallurgical aspects of the subject fitting.

The Plaintiffs,
By Their Attorneys,

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CERTIFICATE OF SERVICE

I, Alan L. Cantor, hereby certify that I have served a true and correct copy of the foregoing document upon the following counsel of record by mailing a copy of same via first class mail, postage prepaid:

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This 15th day of December, 2004.

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Alan L. Cantor